

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: February 21, 1995

SUBJECT: Sediment Removal Action Level
Sauget Area 2, Site Q, Sauget, Illinois

FROM: Edward Karecki, U.S. Fish & Wildlife Service Biologist
Superfund Technical Support Section EK

TO: Sam Borries, OSC
Emergency Response Branch

This is a follow up to our February 17, 1995 discussion regarding ecologically based emergency removal action levels for PCB contaminated soil/sediment on a bank of the Mississippi River at the above mentioned site. The soil/sediment will be evaluated as sediment since it is located immediately on the bank of the river and well within the floodplain. A slight rise in water level would inundate this area and potentially transport these sediments downstream. The sediment PCB 1260 concentrations at this site range from 180,000 to 260,000 mg/kg.

The table below lists benchmark concentrations for sediment toxicity to freshwater benthic macroinvertebrates.

Sediment Table

Ontario Sediment Guidelines¹ (values in mg/kg)

	Lowest Effect Level ²	Severe Effect Level ²
PCB 1260	0.00025 (tentative)	1.2

The Lowest Effect Level indicates a level of contamination which has no effect on the majority of the sediment-dwelling organisms. The sediment is considered marginally polluted. The Severe Effect Level is considered heavily polluted and likely to affect the health of sediment-dwelling organisms. A 5% TOC level is assumed.

Obviously, the lowest possible action level is best for protection of benthic macroinvertebrates and the aquatic community. For an emergency removal, however, I would suggest that you attempt to lower the PCB level in these sediments to below the severe effect level of 1.2 mg/kg, or as close to this number as is feasible.

If you have any questions or need any additional information, please give me a call at 3-3202. Also, please take the time to complete the attached critique sheet and return it to Steve Ostrodka (5HSRLT-5J). These sheets help us to evaluate how well we are meeting your needs.

cc: Steve Ostrodka, TSS

REFERENCES

¹Ontario Ministry of the Environment. 1991. The Provincial Sediment Quality Guidelines. Prepared by D. Persaud, R. Jaagumagi and A. Hayton, June 1992, 23pp.